

REMARKS

In the Office Action, claims 8-14, 22 and 23 were withdrawn from consideration by the Examiner, while claims 1-7 and 15-17 were rejected. In addition, claims 4-5 (but applicant believes the Examiner meant claims 4-7) and claims 18-21 were objected to as being dependent upon a rejected base claim but were indicated to be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. In response, applicant has canceled claims 3 and 17, and rewritten claims 1, 4-6, 15, and 18-20. In view of the above amendments and following remarks reconsideration of this application is respectfully requested.

In the Office Action, claims 1-7 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner objected to the phrase "such as" in claim 1. However, applicant notes that claim 1 does not contain the phrase "such as" mentioned by the Examiner. Claim 1 and claim 15 do include the phrase "such that," and applicant believes the Examiner is referring to the phrase "such that" in claims 1 and 15 with respect to this § 112, second paragraph, rejection. Accordingly, in response, applicant has amended claims 1 and 15 to change the phrase "such that" to the phrase ---so that---. In view of these amendments, applicant believes claims 1 and 15 are now definite, and requests the Examiner withdraw the § 112, second paragraph, rejection thereof.

In the Office Action, claims 1-3 and 15-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lersch. In addition, claims 1-2 and 15-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Knaggs. In response, applicant has the following comments.

In the first reference, U.S. 2004/0033411 A1 (Lersch et al), it is suggested that the inventors have disclosed an electromagnetic pulse (EMP) protected power system, where the enclosure is formed from materials which dissipate or reflect electromagnetic energy, such that the pulse strength within the enclosure is below the damage threshold of electronic devices within the enclosure. In fact, Lersch et al never really mentions the term

"electromagnetic pulse," or similar terms, in the discussion of their invention. The entire scope of their invention is the avoidance of magnetic materials in the construction of the fuel cell and respective housing, so as to avoid a magnetic signature exiting the fuel cell system. Therefore, constructions which would include plastic enclosures ("a relative magnetic permeability of less than 1.1" – Claim 1) would be within the preferred embodiment of Lersch et al. Plastic enclosures would not protect a controller from EMP damage, which is the main concern of applicant's present invention.

For example, in claim 2, Lersch et al claims "The fuel cell module (1) as claimed in claim 1, characterized in that the housing...are made from nonmetallic materials...". Clearly this embodiment would not attenuate or reflect an EMP pulse, even though embodiments employing metallic enclosures might.

It is clear from the description and claims that the invention of Lersch et al is not intended to disclose a means for EMP protection. In cases where a metallic enclosure is sited, no mention is made of means to protect a controller from EMP damage by shielding the openings or by protecting input and output electrical lines. Further, protection from an EMP wave is quite different than preventing a steady state magnetic field from exiting the enclosure. For example, EMP protection would be quite adequate with ferrous steel, which would be excluded under the invention of Lersch et al.

In the case of the second citation, U.S. 6,372,983 B1 Knaggs discloses an enclosure for a fuel cell coated with a catalyst to prevent explosions. Again, any embodiment which may yield some measure of EMP protection is entirely coincidental (as no mention of EMP protection is made in the narrative), and certain embodiments provide no protection at all. For example, in claim 10 the housing is described as follows: "The enclosure of claim 9 wherein said protective housing pieces comprise a thermoplastic housing material." Clearly this would not protect a controller from EMP damage. Applicant therefore concludes that Knaggs' disclosure for "a protective housing for an electrical component (claim1)" is not a teaching of EMP protection, but rather explosion-proofing.

In view of the above, applicant believes the Examiner should withdraw the rejections based upon Lersch and/or Knaggs.

Finally, in the Office Action, the Examiner indicated that claims 4-5 (provided the rejection under 35 U.S.C. § 112 was overcome) and claims 18-21 were objected to as being dependent upon a rejected base claim. The Examiner indicated that these claims would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

First, applicant would like to point out that it believes the Examiner meant to include claims 6 and 7 in the allowable subject matter. The Examiner's comments clearly indicate that the references do not teach the use of a transparent conductive material coated onto the viewing ports. Therefore, applicant's comments will be directed toward claims 4-7 and 18-21.

The Examiner will see that claims 1 and 15 have been amended to include essentially the limitations of original claims 3 and 17 respectively. In addition, however, these two claims also indicate that "said means" includes "at least one element made of a material to reflect or dissipate electromagnetic pulse energy." Basis for this amendment can be found in the specification as filed at for example paragraph 0008 found at pages 2 and 3 as well as paragraph 0017 found at pages 4-5 including the table set forth on the upper half of page 5. The Examiner will see that the means for reflecting or dissipating electromagnetic pulse energy is much broader than merely a grid and/or a honeycomb cover and/or a transparent coating. Thus, applicant has indicated that the means includes at least one element made of a material to reflect or dissipate electromagnetic pulse energy. Then, claim 4 defines that means as a grid, claim 5 defines that means as a honeycomb cover and claim 7 defines that means as a transparent coating. Applicant believes it is entitled to claim this breadth in view of the clear disclosure of various different means for reflecting or dissipating electromagnetic pulse energy described in the specification as filed.

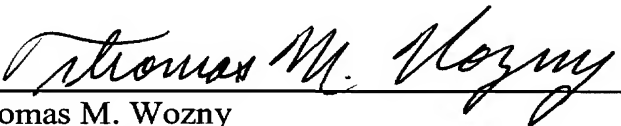
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Accordingly, applicant believes claims 1-2, 4-7, 15-16 and 18-21 are all now allowable.

An effort has been made to place this application into condition for allowance and such action has been earnestly requested.

Respectfully submitted,

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